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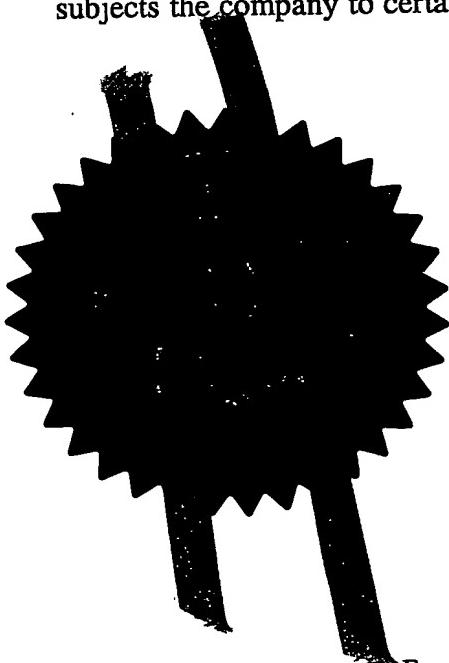
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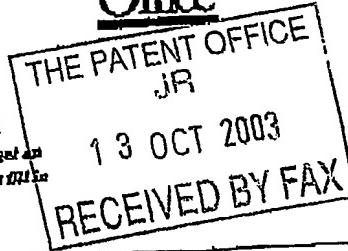
Patents Form 1/77

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(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

1302T03 2844189-1 002950
P01/7700 0.00-0323945.6

The Patent Office

Cardiff Road
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13 OCT 2003

1. Your reference

P66400GB00/MOC/TJ

0323945.6

2. Patent application number

(The Patent Office will fill in this part)

3. Full name, address and postcode of the or of each applicant (underline all surnames)

Classic Marble (Showers) Ltd
31 Garvaghey Bridge Road
Garvaghey
Ballygawley
County Tyrone BT70 2EW
Northern Ireland

Patents ADP number (if you know it)

85842860001

If the applicant is a corporate body, give the country/state of its incorporation

4. Title of the invention A Waste Fitting

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom
to which all correspondence should be sent
(including the postcode)

4 Mount Charles
Belfast
BT7 1NZ
Northern Ireland
United Kingdom

757053002

Patents ADP number (if you know it)

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number
(if you know it)Date of filing
(day / month / year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

NA

Date of filing
(day / month / year)8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if
a) any applicant named in part 3 is not an inventor, or
b) there is an inventor who is not named as an
applicant, or
c) any named applicant is a corporate body.
See note (d)

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Continuation sheets of this form

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Description

9

Claim(s)

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Abstract

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Priority documents

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Statement of inventorship and right to grant of a patent (Patents Form 7/77)

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Request for preliminary examination and search (Patents Form 9/77)

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Request for substantive examination (Patents Form 10/77)

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Any other documents (please specify)

0

I/We request the grant of a patent on the basis of this application.

11.

Signature *Appachett*
Classic Marble (Showers) Ltd

Date 13-10-03

12. Name and daytime telephone number of person to contact in the United Kingdom

TARA JENNINGS - 028 9023 6000

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Patents Form 1/77

A Waste Fitting

The present invention relates to a waste fitting, in particular a waste fitting suitable for use in a wash basin, a bath or the like.

Conventional waste fittings provide a connection between a water outlet of a fixture such as a wash basin or a bath, and a trap or waste pipe leading to a drain or the like.

Such waste fittings generally comprise a short tubular sleeve having an external screw-thread for connecting the waste fitting to the waste pipe. A grille is often seated within the waste fitting to prevent waste material of a certain size from passing through. The grille may be removable to enable the tubular sleeve to be cleaned using a brush for example.

It is also known for wash basins and baths to be provided with an overflow system including an overflow drain hole provided in a wall of the wash basin or bath, generally just below the taps, and a conduit leading from the overflow drain hole. The overflow system may be integrally formed with the wash basin or bath, in which case the overflow conduit leads to and joins the waste pipe.

Although such overflow systems are useful in preventing the wash basin or bath from overflowing and flooding, they tend to pick up dirt, grime and waste material over time. It is particularly difficult to clean the overflow conduit due to its relatively inaccessible location.

Many cleaning/disinfecting fluids poured down the waste fitting or the overflow conduit will simply flow down through the respective sleeve or conduit and out through the waste pipe. The cleaning/disinfecting fluids therefore 5 have minimal contact with the sleeve or conduit, rendering this an ineffective method for cleaning and/or disinfecting the waste fitting and the overflow conduit.

It is an object of the present invention to mitigate some 10 or all of the disadvantages of the prior art.

According to a first aspect of the present invention there is provided a waste fitting comprising:
a sleeve which is arranged to, in use, connect to an 15 overflow system via a conduit, said sleeve having an inlet arranged to receive said conduit; and
a plug arranged to sit into a first end of said sleeve, 20 said plug and said sleeve being cooperable to enable said plug to move to a point along the length of the sleeve between the inlet and a second end of the sleeve remote from the first end.

Preferably said fitting includes a removable grille arranged to sit into the first end of said sleeve; and 25 wherein said plug is arranged to sit into said grille.

Preferably, the sleeve is shaped and dimensioned to enable the plug to have substantially sealing engagement with the sleeve at a point along its length. In this way, when the 30 plug is located between the inlet and the second end of the sleeve, material located between the plug and the first end

is prevented from passing the plug. Thus, the plug is adapted to retain any material located between the plug and the first end within the sleeve.

- 5 Preferably, the sleeve and grille are cooperable to retain the plug at a point along its length between the first end and the inlet.

Preferably, the first end is a water outlet provided at a lowermost part of a wash basin or a bath or the like.

Preferably, the second end includes an external screw-thread for connecting the waste fitting to a trap or pipe of a waste water system.

- 15 Preferably, the sleeve is tubular in shape. Preferably, each of the grille and the plug have substantially circular face, such that, in use, the grille and the plug can be located substantially co-axially within the sleeve.

20 Advantageously, the sleeve may be adapted to taper in at least a region thereof, so as to provide a seat for sealing engagement between the plug and the sleeve.

- 25 Optionally, the grille is arranged to be reversibly seated within the sleeve.

According to a second aspect of the present invention there is provided an apparatus such as a wash basin or a bath, 30 the apparatus including a waste fitting as hereinbefore defined connected to an overflow conduit.

As used herein, the term "material" is intended to mean any solid or fluid matter, in particular liquid and semi-solid waste matter typically found in waste water from a wash basin or bath, without intending to limit the meaning of the term thereto.

An embodiment of the present invention will now be described with reference to the accompanying drawings, in which:

Figure 1 is a partially cut-away perspective view of a waste fitting according to a preferred embodiment of the present invention, showing a plug arranged to sit into a first end of the waste fitting;

Figure 2 is a partially cut-away perspective view of the waste fitting of figure 1, showing the plug located at a point along the length of the waste fitting; and

Figure 3 is a cross-sectional schematic view of the waste fitting of figures 1 and 2.

Referring now to the accompanying drawings, there is illustrated a waste fitting 10 according to a preferred embodiment of the present invention. The waste fitting 10 preferably comprises a sleeve 12 having an inlet 14 located between a first end 18 and a second end 20 of the sleeve 12. The waste fitting 10 also comprises a plug 16 arranged to be seated, in sealing engagement, in the first end 18 of the sleeve 12. The plug 16 and the sleeve 12 are also

adapted, as will be described hereinafter, to enable the plug 16 to be seated, in sealing engagement, in a position between the inlet 14 and the second end 20 of the sleeve 12, thereby sealing the sleeve 12 beneath the inlet 14.

5

The sleeve 12 is also preferably adapted to be connected, in fluid communication, to an overflow system (not shown) via a conduit (not shown), as is conventionally the case.

- 10 The waste fitting 10 preferably includes a removable grille 22 arranged to sit into the first end 18, forming a seal between the circumference of the grille 22 and the first end 18 of the sleeve 12. The plug 16 is thus shaped and dimensioned to sit, in sealing engagement, within the grille 22.
- 15 The sleeve 12 is preferably substantially tubular in shape, and is shaped and dimensioned to enable the plug 16 to be seated in sealing engagement, within the sleeve 12 at a point, in use, below the inlet 14, to clean the sleeve 12 and/or the conduit (not shown) of the
- 20 overflow system, as will be explained in more detail hereinafter.

- 25 The waste fitting 10 is preferably secured within a fixture such as a wash basin or bath (not shown) or the like. The waste fitting 10 therefore provides a connection between a water outlet (not shown) of the fixture and a waste trap (not shown) or pipe (not shown), generally leading to a drain (not shown) or the like. In this case the first end 18 defines a water outlet provided in a base of the
- 30 fixture. The waste fitting 10 is also provided with a screw thread 24 provided adjacent the second end 20, the

screw thread 24 being used to secure the fitting 10 to the fixture and to connect the waste fitting 10 of the wash basin, bath or the like to the waste pipe or trap.

5 In use, in its normal working condition, both the grille 22 and the plug 16 are arranged to sit into the first end 18, as previously mentioned herein. Both the grille 22 and the plug 16 are preferably substantially circular such that the grille 22 and the plug 16 are located substantially co-
10 axially within the first end 18 of the sleeve 12. It will therefore be appreciated that, in the preferred embodiment illustrated, the plug 16 has a diameter which is less than the first end 18. Thus, in its normal working condition, the plug 16 can be removed from the grille 22 as and when
15 is desired, to enable waste material, in particular water, to drain from the fixture and through the waste fitting 10.

When a user (not shown) wants to clean the sleeve 12 of the waste fitting 10 or the conduit (not shown) of the overflow system, the plug 16 may be moved into the position below the inlet 14, in order to allow the overflow conduit (not shown) and the upper end of the sleeve 12 to be filled with a disinfectant fluid or the like. In order to move the plug to this position, the plug 16 is first removed from the grille 22, followed by the removal the grille 22 from the sleeve 12. The plug 16 is then pushed down towards the second end 20, using any suitable means (not shown), until the plug 16 is located between the inlet 14 and the second end 20. The plug 16, having a smaller diameter than the upper portion of the sleeve 12, is easily moved beneath the inlet 14. However, beneath the inlet 14, the internal

diameter of the sleeve 12 decreases. The decreased internal diameter may, for example, be a result of the thickness of the wall of the sleeve 12 being increased in this area, however the invention is not considered to be limited in this way. On reaching this lower portion of the sleeve 12, the plug 16 may then be seated in sealing engagement with the sleeve 12, as illustrated in Figure 2. The circumference of the plug 16 is preferably tapered in profile, inwardly from the top to the bottom, in order to create a taper lock, and thus a seal, with the sleeve 12.

In this position, the plug 16 is releasably secured within the sleeve 12 in sealing engagement therewith. Consequently, material located between the plug 16 and the first end 18 is prevented from passing the plug 16. Thus, the plug 16 is adapted to retain any material located between the plug 16 and the first end 18 within the sleeve 12. By placing the plug 16 in this position, the user can then fill either or both of the sleeve 12 and the overflow conduit (not shown) with a disinfectant fluid or the like. Since the fluid is prevented from passing the plug 16 the disinfecting fluid may be maintained in prolonged contact with the sleeve 12 and/or overflow conduit, making this an effective method for cleaning and/or disinfecting any waste material from the sleeve 12 and/or overflow conduit. Once the sleeve 12 and/or the overflow conduit have been cleaned, the plug 16 can be removed from the sleeve 12 using any suitable means, thereby allowing the disinfecting fluid to drain from the waste fitting 10. For example, an elongate hook (not shown) or the like may be used to engage

a tab 26 provided on the plug 16, thus enabling the plug 16 to be drawn out of the sleeve 12.

It will be appreciated that when the waste fitting 10 is used as hereinbefore described, the sleeve 12 may be tapered between the upper and lower sections thereof, so as to provide a seat for sealing engagement of the plug 16 with the sleeve 12. It will however be further appreciated that the grille 22 is not necessarily an essential component of the waste fitting 10. If the grille 22 is not present, the plug 16 may be adapted, in any suitable way, to be movable between its normal working position, i.e. within the first end 18, and the position wherein the plug 16 is located between the inlet 14 and the second end 20, while providing a seal between the plug 16 and sleeve 12 in both of said positions. For example, the plug 16 may be resiliently deformable to the extent that by placing pressure on certain parts of the plug 16, the width of the plug 16 may be adaptable to enable the plug 16 to be moveable between the different positions described herein.

Optionally, the grille 22, if present, may be arranged to be reversibly seated within the sleeve 12, by adapting the grille 22 and/or the sleeve 12 in any suitable way.

As a further alternative, the waste fitting 10 could be provided with a pair of plugs (not shown), one being shaped and dimensioned to be seated in sealing engagement with the first end 18, and the other being shaped and dimensioned to be seating in sealing engagement, with the sleeve 12, below the inlet 14 as hereinbefore described.

- Furthermore, the waste fitting 10 may advantageously be used with any suitable removable pop-up plug system (not shown), or any other lever operated plug system (not shown). In this case, the pop-up system would preferably be present at the first end 18 of the sleeve 12 in place of the grille 22 and the plug 16. In order to clean the sleeve 12 and/or the conduit of the overflow system, the pop-up system would be removed from the sleeve. A standard plug (not shown) or the like would then preferably be moved into the position below the inlet 14, having sealing engagement with the sleeve 12 as hereinbefore described, to facilitate cleaning of the sleeve 12 and/or the overflow conduit. It will be appreciated that the waste fitting 10 may therefore be conveniently constructed (for example concerning the positioning of the inlet 14 along the length of the sleeve 12), so as to be compatible with any suitable pop-up system (not shown).
- Although the present invention has been described as particularly suitable for use with a wash basin, a bath or the like, it will be appreciated that the waste fitting 10 is not limited to being used with such fixtures. The waste fitting 10 may alternatively be used with a shower (not shown) or a sink (not shown), or any other fixture.

The present invention is not limited to the embodiment described herein, which may be adapted or modified without departing from the scope of the present invention.

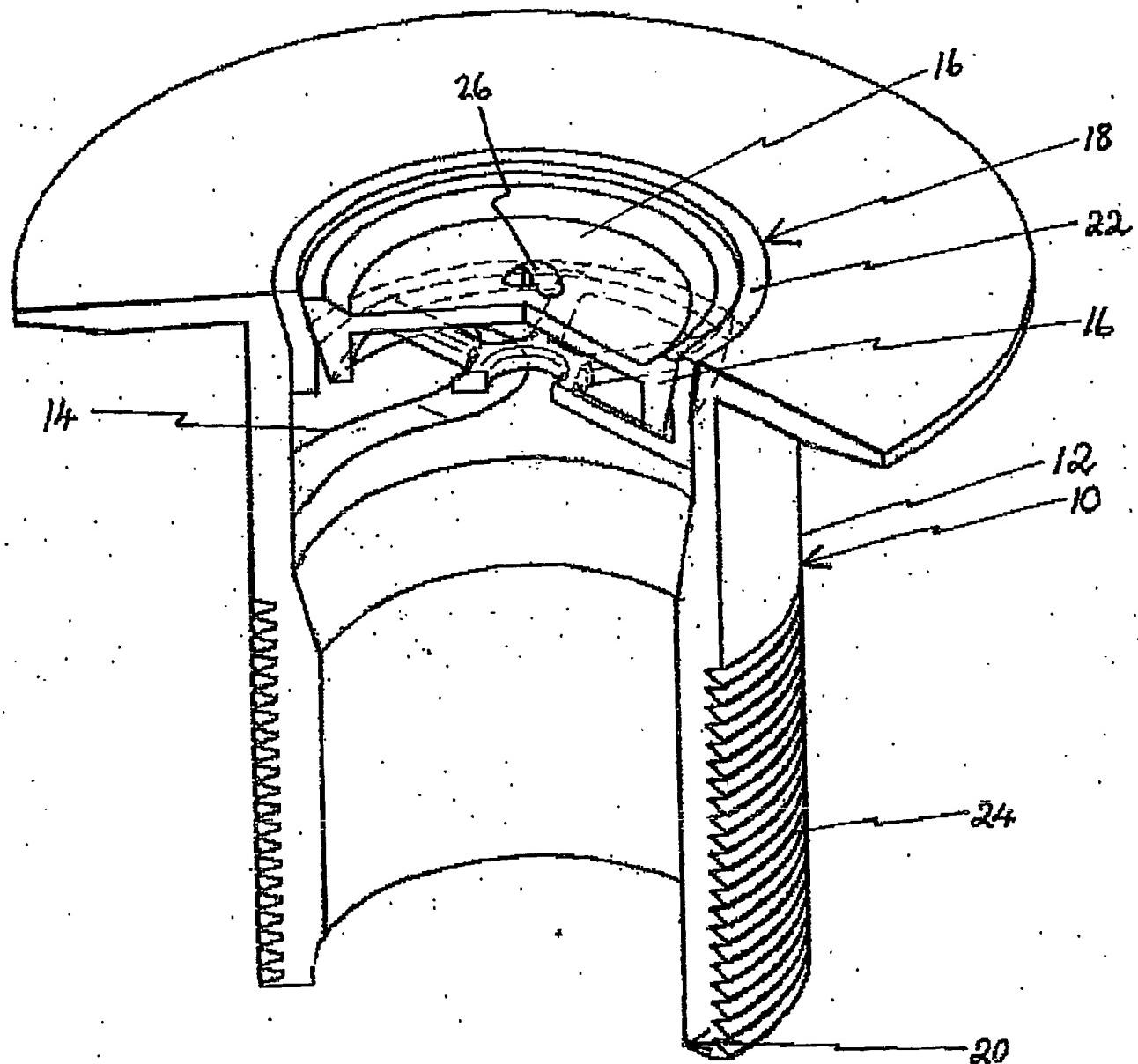
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FIGURE 1

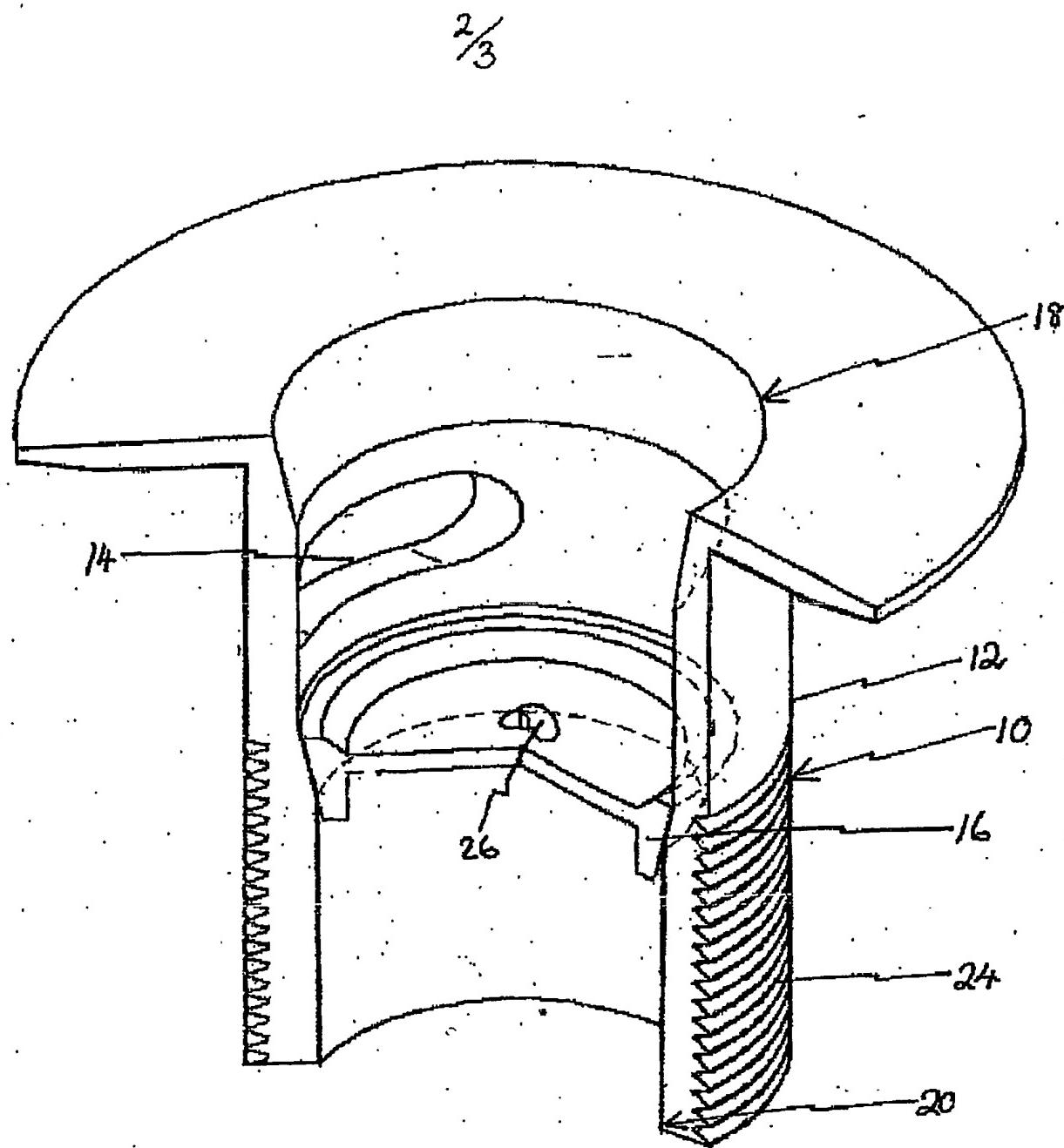


FIGURE 2

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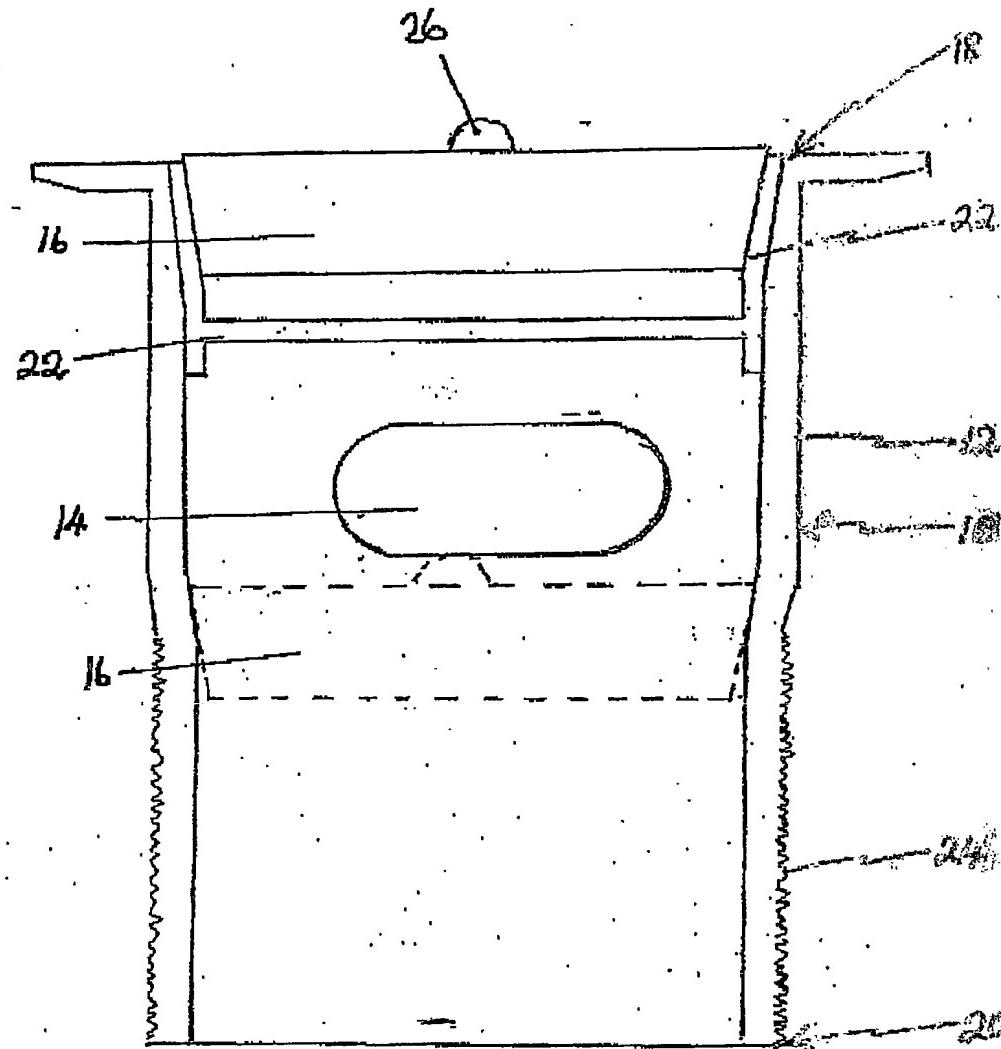


FIGURE 3

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Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:

In relation to this international application, Classic Marble (Showers) Limited is entitled to apply for and be granted a patent by virtue of the following:

(i) Donald Hackett of 10 Crackrawer Road, Ballygawley, County Tyrone BT70 2BP, United Kingdom, is the inventor of the subject matter for which protection is sought by way of this international application

(ii) Classic Marble (Showers) Limited is entitled as employer of the inventor, Donald Hackett

this declaration is made for the purposes of all designations except the designation of the United States of America.

This declaration is continued on the following sheet, "Continuation of Box No. VIII (ii)".

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